AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) An optical fiber drawn from ~~A method of manufacturing~~ an optical fiber preform manufactured by a method using MCVD (Modified Chemical Vapor Deposition) which forms a clad and a core in a deposition tube by using a flame providing unit reciprocating along an axial direction of the deposition tube, the method repeatedly executing the following process with varying composition of soot generation gas according to a refractive index profile, in which the process comprises the steps of:

(a) forming a soot layer having pores on an inner surface of the deposition tube by inducing soot generation reaction at a temperature lower than a soot sintering temperature with putting soot generation gas in a halide group together with oxygen gas in the deposition tube;

(b) removing hydroxyl groups existing in the soot layer with keeping the pores by putting dehydration gas into the deposition tube;

(c) removing chlorine impurities existing in the soot layer with keeping the pores by putting dechlorination gas into the deposition tube; and

(d) sintering the soot layer by heating the deposition tube at a temperature above the soot sintering temperature,

wherein a peak of hydroxyl group absorption loss at 1385nm is less than 0.33dB/Km, an optical loss at 1310nm is less than 0.34dB/Km, an optical loss at 1550nm is 0.20dB/Km, and a concentration of hydroxyl group and chlorine impurities is less than 1ppb.

2. (currently amended) An optical fiber ~~a method of manufacturing an optical fiber preform~~ according to claim 1, wherein the step (a) is accomplished at a temperature lower than 1600°C.

3. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 1, wherein the step (a) is accomplished at a temperature selected in the range of 1400 ~ 1600°C.

4. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 1, wherein the step (b) is accomplished at a temperature lower than the soot sintering temperature.

5. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 4, wherein the step (b) is accomplished at a temperature lower than 1200°C.

6. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 4, wherein the step (b) is accomplished at a temperature selected in the range of 900 ~ 1200°C.

7. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 1, wherein in the step (b) the flame providing unit moves at a rate lower than 700mm/min.

8. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 1, in the step (b),

wherein the dehydration gas is chlorine gas, and

wherein the chlorine gas is mixed with inert carrier gas and then the mixed gas is supplied into the deposition tube.

9. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 1, wherein the step (c) is accomplished at a temperature lower than the soot sintering temperature.

10. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 1, wherein the step (c) is accomplished at a temperature higher than the process temperature of the step (b) as much as 50°C and lower than 1200°C.

11. (currently amended) An optical fiber ~~A method of manufacturing an optical fiber preform~~ according to claim 1, wherein in the step (c) a movement rate of the flame providing unit is kept lower than 700mm/min.

12. (currently amended) <u>An optical fiber</u> ~~A method of manufacturing an optical fiber preform~~ according to claim 1, in the step (c),

wherein the dechlorination gas is oxygen gas, and

wherein the oxygen gas is mixed with inert carrier gas and then the mixed gas is supplied into the deposition tube.

13. (currently amended) <u>An optical fiber</u> ~~A method of manufacturing an optical fiber preform~~ according to claim 1, in the step (d),

wherein gas for making oxidation condition is put into the deposition tube together with dehydration gas in order to sinter the soot layer and remove residual hydroxyl groups in the soot layer at the same time.

14. (currently amended) <u>An optical fiber</u> ~~A method of manufacturing an optical fiber preform~~ according to claim 1, wherein the step (d) is accomplished at a temperature higher than 1700°C.

15. (currently amended) <u>An optical fiber</u> ~~A method of manufacturing an optical fiber preform~~ according to claim 1, wherein in the step (d), a movement rate of the flame providing unit is kept lower than 700mm/min.

16. (currently amended) <u>An optical fiber</u> ~~A method of manufacturing an optical fiber preform~~ according to claim 1,

wherein the refractive index profile is in correspondence with refractive indexes of the clad and core, and

wherein a diameter ratio of the clad and core (D/d) is determined in the range of 2.0 ~ 2.5.

17. (currently amended) <u>An optical fiber drawn from</u> ~~A method of manufacturing~~ an optical fiber preform <u>manufactured by a method</u> using MCVD (Modified Chemical Vapor Deposition) which forms a clad and core in a deposition tube by using a torch reciprocating along an axial direction of the deposition tube, the method repeatedly executing the following process with varying composition of soot generation gas according to a refractive index profile, in which the process comprises the steps of:

(a) forming a silica soot layer having pores on an inner surface of the deposition tube by heating the deposition tube at a temperature in the range of 1400 ~ 1600°C with the reciprocating torch with putting soot generation gas in a halide group together with oxygen gas into the deposition tube;

(b) removing hydroxyl groups existing in the silica soot layer by heating the deposition tube in the range of 900 ~ 1200°C with the torch, which reciprocates at a rate lower than 700mm/min, with putting a mixed gas including chlorine gas and inert carrier gas into the deposition tube;

(c) removing chlorine impurities existing in the soot layer by heating the deposition tube higher than the process temperature of the step (b) as much as 50°C and lower than 1200°C with the torch, which reciprocates at a rate lower than 700mm/min, with putting a mixed gas including oxygen gas and inert carrier gas into the deposition tube; and

(d) sintering the soot layer by heating the deposition tube at a temperature higher than 1700°C with the torch, which reciprocates at a rate lower than 700mm/min, with putting a mixed gas including chlorine gas, gas for making oxidation condition, and inert carrier gas into the deposition tube,

wherein a peak of hydroxyl group absorption loss at 1385nm is less than 0.22dB/Km, an optical loss at 1310nm is less than 0.34dB/Km, an optical loss at 1550nm is 0.20dB/Km, and a concentration of hydroxyl group and chlorine impurities is less than 1ppb.

18. (currently amended) An optical fiber ~~drawn from the optical fiber preform manufactured by the method defined according to any of the claims 1 to 17, of which~~ wherein a peak of hydroxyl group absorption loss at 1385nm is less than 0.33dB/Km, an optical loss at 1310nm is less than 0.34dB/Km, an optical loss at 1550nm is 0.20dB/Km, and a concentration of hydroxyl group and chlorine impurities is less than 1ppb.

19. (canceled)